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- (71) Applicant (for all designated States except US): WAYNE STATE UNIVERSITY [US/US]; 4043 Faculty/Administration Building, Detroit, MI 48202 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WINTER, Charles, H. [US/US]; 4735 Walnut Lake Road, Bloomfield Hills, MI 48301 (US). DEZELAH, Charles, L. [US/US]; 316 La Plaza Court, Royal Oak, MI 48073 (US).
- (74) Agents: PROSCIA, James, W. et al.; Brooks Kushman, 1000 Town Center, Twenty-Second Floor, Southfield, MI 48075 (US).

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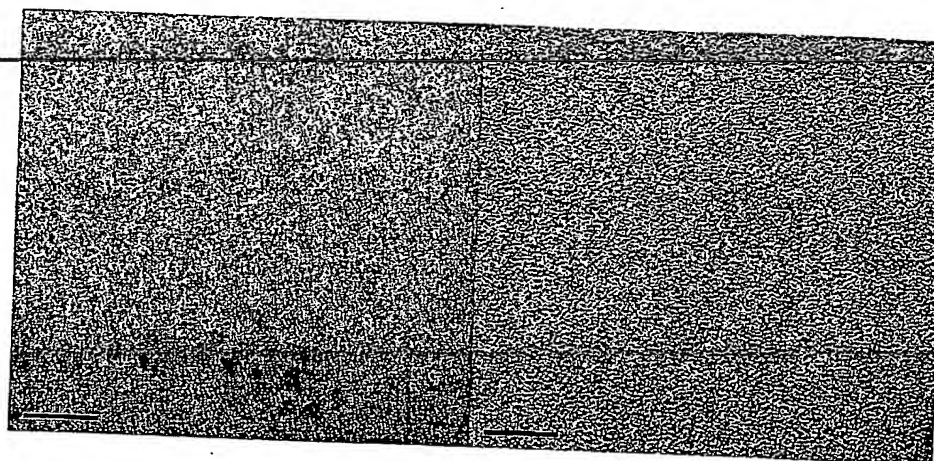
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[Continued on next page]

(54) Title: METAL OXIDE-CONTAINING NANOPARTICLES



TEM of pyridine-protected Cu₂O nanoparticles

(57) Abstract: The present invention provides a copper oxide-containing composition that includes copper oxide nanoparticles and one or more heteroatom donor ligands bonded to the surface of the nanoparticles, where x and y are numbers having a ratio that is equal to the ratio of the average number of M atoms to the average number of O atoms in the nanoparticles. The nanoparticles are stabilized by the one or more heteroatom donor ligands which act as a protective layer that cap the surface of the nanoparticles. The present invention also provides a solution of the copper oxide nanoparticles that may be applied to a substrate and then subsequently reduced to copper metal. Finally, the invention provides a method of preparing the copper oxide nanoparticles.

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